

*Amendment and Response to 10/18/2005 Office Action
U.S. App. Ser. No. 10/625789
Attorney Docket: 056754/0124941*

REMARKS

Claims 1-50 are pending in the application. Claims 16-24 and 40-48 are withdrawn in response to the previously imposed restriction requirement as being directed to a nonelected Species. Claims 1 and 2 are designated as generic. In the Office Action mailed October 19, 2005, Claims 1-10, 12-15, 25-34, 36-39, 49, and 50 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ekchian et al (U.S. Pat. No. 4,862,160; hereinafter "Ekchian"). Claims 11 and 35 are objected to as being dependent upon a rejected base claim, but are indicated as allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for the indication of allowable subject matter.

I. Rejections under 35 U.S.C. 102(b)

Claims 1-10, 12-15, 25-34, 36-39, 49, and 50 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ekchian. The Applicants respectfully traverse the Examiner's rejections. The Applicants' invention differs from the teaching of Ekchian in, among other things, the parameter that the Applicants measure and use in determining the desired property of the set of tags. Ekchian teaches measurement and use of the *strength* (amplitude) of a signal received from the queried tag set (Ekchian at least at col. 2, lines 17-21; col. 3, lines 14-25; Figs. 10-13). Ekchian makes the assumption that, for a specific set of tags, the frequency of the signal that will be received can be known in advance (Ekchian at least at col. 3, lines 49-56; col. 4, lines 15-20), and that the amplitude of this received signal will then be proportional to the number of tags generating that signal (the number of tags in the set). In the method of Ekchian, a graph of the amplitude of the received signal is created and a numerical integration under the area of the curve of the graph performed to determine the number of tags in the set (Ekchian at least at col. 5, line 42 to col. 6, line 59).

In contrast, in the Applicants' invention, no assumptions are made about, or arising from, the strength of the received signal. The Applicants do not even measure the amplitude of the received signal. Instead, the Applicants measure the *frequency* of the received signal, whatever it may be, determine the *frequency shift* of this signal in comparison to a reference signal, and then use the frequency shift to determine the property of interest (Specification at least at

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paragraphs [0006], [0034], [0049], [0051], [0056], and [0062] and in Figs. 4, 6, and 8). In order to more particularly call out and claim this aspect of the Applicants' invention, the Applicants have herein amended independent claims 49 and 50 to particularly call out that the Applicants' invention utilizes *the frequency shift between the measured frequency and the reference frequency* in determining the desired parameter. Support for these amendments are found in the specification at least at paragraphs [0006], [0010], [0018], [0034], [0049], [0051], [0056], and [0062] and in Figs. 4, 6, and 8. No new matter is added by these amendments.

Because Ekchian does not determine or make use of a *frequency shift* parameter, Ekchian fails to anticipate or make obvious the Applicants' invention, whether taken alone or in combination, as does all other art of record. Reconsideration and withdrawal of the rejections of claims 49 and 50 as being anticipated by Ekchian is therefore respectfully requested.

The Applicants' use of a frequency shift over a reference frequency in order to determine a property of a set of tags is novel and nonobvious in the art. In fact, the Muller reference (U.S. Pat. No. 6,639,514) made of record by the Examiner teaches that this frequency shift is the result of an "undesired coupling between two adjacent RFID labels" (Muller at col. 2, lines 40-42), that Muller refers to as "interference caused by other transponders" (Muller at col. 3, lines 34-35). The teaching of Muller is specifically directed to explaining why this "interference" is undesirable (Muller at least at col. 1 line 63 to col. 2, line 55) and to finding ways to prevent it (Muller at least at col. 3, line 33 to col. 4, line 2). Muller therefore distinctly teaches away from the invention of the Applicants. One of ordinary skill in the art would therefore not be motivated to make use of the "interference" of Muller in order to determine a property of a set of RFID tags. For this reason, the invention of the Applicants is novel and nonobvious, and allowance of claims 49 and 50, as herein amended, is respectfully requested.

Because claims 1-10 and 12-15 depend from currently amended independent claim 49, which is not anticipated by Ekchian and is in condition for allowance, claims 1-10 and 12-15 are also in condition for allowance. Reconsideration and withdrawal of the rejection of claims 1-10 and 12-15 is therefore respectfully requested. Similarly, because claims 25-34 and 36-39 depend from currently amended independent claim 50, which is not anticipated by Ekchian and is in condition for allowance, claims 25-34 and 36-39 are also in condition for allowance. Reconsideration and withdrawal of the rejection of claims 25-34 and 36-39 is therefore respectfully requested. Because claims 11 and 35 depend from independent claims 49 and 50,

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respectively, which are not anticipated by Ekchian and are in condition for allowance, claims 11 and 35 are also in condition for allowance. Reconsideration and withdrawal of the objections to claims 11 and 35 is therefore respectfully requested.

II. Conclusion

Claims 49 and 50 have been amended. The Applicants respectfully submit that claims 1-15, 25-39, 49, and 50 are now in condition for allowance, which action is therefore requested. Should there remain any unresolved issues, it is respectfully requested that the Examiner telephone Norma E. Henderson, Applicants' Attorney, at 603-225-4334, so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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Date

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